

KENTUCKY COUNTY HEALTH PROFILES, 1998

SUMMARY

HEALTH AND SOCIAL INDICATORS

POPULATION: Accurate and reliable population estimates are fundamental to any population-based health status analysis. All population figures used in this report are 1998 estimates provided by Kentucky Population Research, Urban Studies Institute, University of Louisville, and all population-based rates have been computed using these estimates. These estimates were provided in three racial categories: White, African American, or Black, and Other. Races other than White and Black comprised less than one percent of the estimated population of Kentucky in 1998. Therefore, due to limitations of space and the extremely small numbers of the Other population at the county level, statistics disaggregated by race in this report are presented for the White and Black populations only.

Also due to limitations of space, rates for many indicators in this report have not been included. Basic population data have been provided to allow the reader to calculate additional rates as need be.

TOTAL BIRTHS: Birth statistics are extremely important measures of health status as they serve as an indicator of a broad range of nutritional, environmental, and other health-related factors in a population.

Crude birth rate: In 1998, the crude birth rate in Kentucky was 13.8 births per 1,000 population, up slightly from 13.5 in 1997, and the first increase in the rate since 1991. The rate ranged from 6.6 per 1,000 in Lyon County to 19.5 per 1,000 in Christian County.

Under 18 birth rate: Births to teen mothers are a major public health concern as they are associated with higher rates of low birthweight and infant mortality and create educational, social, and economic problems for both mother and child. In 1998, the under 18 age-specific birth rate in Kentucky was 12.9 births per 1,000 females aged 10-17, down from 14.7 in 1997. The rate ranged from 40.3 per 1,000 in Menifee County to 0.0 per 1,000 in Robertson County. Statewide, 5.2% of all births were to mothers under 18, a decrease from 6.0% in 1997.

Weight less than 2,500 grams: Low birthweight is a major contributing factor in infant mortality and long-term disability. In 1998, 8.2% of children born in the state weighed less than 2,500 grams (5 lb. 8 oz.), an increase over the 1997 rate of 7.8%. By county, this percent varied from a high of 16.0% in Hickman County to a low of 1.4% in Cumberland County.

Mothers without prenatal care, 1st trimester: Early prenatal care is associated with decreased risk of low birthweight and infant mortality. In 1998, 14.5% of Kentucky mothers did not receive prenatal care during the first trimester of pregnancy, a slight increase from 14.1% in 1997. This measure ranged from 30.0% in Crittenden County to 2.7% in Hancock County.

Unmarried mothers: Unmarried mothers tend to have poorer birth outcomes than married mothers because they are disproportionately young, less educated, and are more likely to be poor. Among the factors related to births to unmarried mothers are higher rates of teenage pregnancy, lack of prenatal care, and low weight births. Statewide, the rate of births to unmarried mothers in 1998 was 300.9 per 1,000 live births, an increase from 295.2 in 1997. Fulton County had the highest rate, at 422.4 per 1,000, and Carlisle County had the lowest rate, 129.0 per 1,000.

WHITE BIRTHS: Due to the preponderance of whites in the total population of Kentucky (92.0%), birth indicators for the white population closely mirror the total in both ranking and rates, but tend to be slightly lower.

BLACK BIRTHS: The major indicators of birth outcomes continued to be less favorable for blacks than for the rest of the population, but the gap between blacks and whites narrowed for some indicators. The under 18 birth rate for blacks in 1998 fell to slightly less than twice the rate for whites (23.1 to 12.0 per 1,000). For the first time, less than a fourth (23.0%) of black mothers failed to receive prenatal care during the first trimester (compared to 13.6% for whites). However, the rate of unmarried births to black mothers remained over two and one-half times the white rate (717.6 to 261.1 per 1,000). Single-year black birth statistics, in particular, in most Kentucky counties should be used with great caution due to the very small numbers involved.

INFANT MORTALITY: The infant mortality rate is one of the most universal and understandable measures of a population's health status. In 1998 the statewide rate was 7.6 infant deaths per 1,000 live births, an increase from 7.2 in 1997 following a general decline since the late 1980s. Twenty-five counties recorded no infant deaths in 1998. Statewide, the infant mortality rate for whites was 6.9 deaths per 1,000 births, and for blacks it was 14.7 per 1,000, an increase from 11.0 in 1997. One should be particularly careful in using these rates at the county level due to the small numbers involved.

REPORTABLE DISEASE CASES: Despite the significant progress made in the reduction in incidence of infectious diseases in this century, they remain an important cause of illness and death. In addition, surveillance of infectious diseases continues to be of extreme importance in the face of new diseases and newly resistant pathogens which may emerge in the future. This report records the number of cases reported during 1998 of syphilis, pertussis, hepatitis A, hepatitis B, tuberculosis, *Chlamydia trachomatis* infections, animal rabies, and an index of foodborne diseases, the sum of *Salmonella*, *Shigella*, and *Campylobacter* infections.

SOCIOECONOMIC INDICATORS: Economic and social factors have long been associated with health status. Living conditions and health behaviors associated with poverty have such enormous implications for health that they cannot be ignored in any investigation of health status.

Population per primary care provider: This is an indicator of a population's access to medical care. Statewide, there were 1,734 persons per primary care physician. The counties exhibited wide variation in this ratio however. The highest was Robertson County, which had no primary care physicians, and the lowest was Fayette County, with 1,095 persons per primary care physician.

Medicaid eligible, FY 1998 and Medicaid utilizers, unduplicated, FY 1998: These indicators measure medical care coverage by the Medicaid program for the financially and/or medically indigent. In state fiscal year 1998, more than one-half million people, 13.6% of the population of Kentucky, were eligible for Medicaid services. The average monthly unduplicated number of utilizers, i.e., eligible members having one or more paid claims, was over 315,000 persons, and comprised 8.0% of the population. Owsley County ranked highest in both Medicaid eligible percent (43.2) and Medicaid utilizer percent (28.3). Oldham County ranked lowest in both measures at 3.3% and 2.0% respectively.

Food stamp recipients, AFDC (Aid to Families with Dependent Children) recipients, and WIC (Women, Infants, and Children) recipients: These

measures present data on the proportions of the population who accessed programs for the indigent. In fiscal year 1999, 10.1% of the total population received food stamps. In calendar year 1998, 3.0% received AFDC benefits, and 10.0% of the eligible population were served by the WIC program. Owsley County ranked highest in both food stamp percent (37.9) and WIC percent (21.4). Martin County had the highest AFDC percent, at 13.6.

Persons in poverty, 1995: Based on 1995 statistics, the most recent available, 17.9% of the population in Kentucky were below the poverty level. Kentucky counties ranged from 46.6% in Owsley County to 5.9% in Oldham County.

Persons < 18 in poverty, 1995: It is estimated that slightly over one-quarter (26.0%) of the total population under the age of 18 lived in poverty in 1995. Eight counties, all in the southeastern part of the state, were in excess of 50% in this measure. Owsley County again topped the list at 65.4%.

Unemployed: Unemployment rates in 1998 ranged from a high of 26.3% in Russell County to 1.6% in Woodford County. The statewide rate was 4.6%.

1995 median household income: According to 1995 statistics, the most recent available, the median household income in Kentucky was \$28,929, up from \$25,221 in 1993. By county, median household income ranged from \$52,475 in Oldham County to \$14,393 in Owsley County.

EDUCATION: Educational attainment is closely related to socioeconomic status and also has implications for health.

Mothers with less than 12 years of education: In 1998, over one in five (22.0%) women giving birth had less than a high school education, a slight improvement over the 1997 percent of 22.6. This measure ranged from 49.3% in Owsley County to 11.2% in Oldham County.

Transition rate (1997-1998): This indicator measures the percent of high school graduates who successfully make the transition to employment, military service, or further schooling. Statewide, for the 1997-1998 school year, 94.9% of graduates made the transition successfully. Two counties recorded 100%. Clay and Gallatin counties had the lowest rates, at 77.8%.

Dropout rate (1997-1998): During the 1997-1998 Kentucky school year, 3.8% of students in grades 7-12 dropped out of school. This rate ranged from 7.1% in Hart County to 0.5% in Ballard County.

OCCUPATIONAL INJURIES: In 1998, there were 118 fatal occupational injuries in the state, 30 agricultural, and 88 nonagricultural. Nonagricultural injuries decreased from 112 in 1997, and total occupational injuries decreased from 146.

A complete accounting of occupational injuries other than those resulting in fatality is difficult to obtain in Kentucky. The most complete nonfatal injury data available by county are from Workers' Compensation claims, which do not record all occupational injuries, particularly agricultural. Nevertheless, 49,091 nonfatal occupational injuries were reported in 1998, 649 agricultural and 48,442 nonagricultural, all increases from 1997.

ADULT ABUSE: Adult abuse and neglect are important causes of injury and death, and they are increasingly recognized as public health problems. In Kentucky in 1998, there were 9,590 substantiated incidents of adult abuse (abuse by someone other than spouse), a rate of 3.3 per 1,000 persons 18 and older and 12,667 substantiated incidents of spouse abuse, a rate of 4.3 per 1,000. (These figures, tabulated for fiscal year 1998, were the most recent available, and are the same figures reported in the 1997 *Profiles*.)

CHILD ABUSE AND NEGLECT: Statewide in fiscal year 1998, there were 6,334 substantiated incidents of child physical abuse, 1,728 of child sexual abuse, and 19,135 of child neglect per 1,000 persons under age 18. These translated to rates of 6.4, 1.7, and 19.4 per 1,000 persons under age 18,

respectively. All three measures exhibited increases in number from 1997, but the rates were only slightly higher.

VIOLENT CRIMES: Violence, both domestic and nondomestic, is increasingly recognized as a serious public health problem. Acts of intentional violence are often related to socioeconomic conditions and have major impact on the health of a community. In 1998, 266 homicides occurred in Kentucky, an increase from 254 in 1997. (Data in this report for rape, assault, and robbery are for calendar year 1997; more recent data were not available.). Data on violent crimes are reported by county of occurrence.

MOTOR VEHICLE CRASHES: Motor vehicle crashes are one of the greatest causes of unintentional injury and death, and affect all age groups. In 1998, there were 869 persons killed and 52,952 persons injured in motor vehicle crashes in Kentucky. The number of fatalities increased slightly from the 1997 total of 865, but nonfatal injuries decreased from 56,342. Data also indicate that alcohol was a frequently contributing factor, particularly in fatal crashes, in which almost a fourth (24.1%) involved drinking drivers. Data on motor vehicle crashes are presented in the health and social indicators table by county of occurrence.

LEADING AND SELECTED CAUSES OF RESIDENT DEATHS

Cause of death statistics have long been among the most ascertainable, readily available, and comparable of all health status indicators for a population. Virtually 100% of deaths are recorded, and causes of death are assigned by established and consistent nosological procedures. Numbers and crude rates for all ages and each of eight age groups, age-adjusted rates (AAR), and years of potential life lost prior to age 75 (YPLL-75) are shown for each leading and selected cause. Explanations of the calculation of age-adjusted rates and YPLL-75 are included in Definitions and Technical Notes in the Appendix. The ten leading causes of death for the total, white, and black populations, as well as a set of selected causes are presented for each county.

LEADING CAUSES - TOTAL POPULATION: In Kentucky in 1998, there were 37,825 total resident deaths resulting in a crude rate of 961.1 deaths per 100,000 population. The age-adjusted rate (adjusted to the 1940 U.S. standard population) was 533.4 deaths per 100,000, a decrease from 541.1 in 1997. By county, the age-adjusted rate ranged from 892.0 per 100,000 in Martin County to 381.0 in Carlisle County.

The top five leading causes of death, diseases of heart, malignant neoplasms, cerebrovascular disease, chronic obstructive pulmonary disease (COPD), and unintentional injuries, accounted for seven of every ten (71.4%) deaths.

Diseases of heart accounted for almost one-third (31.4%) of total deaths, and was the leading cause of death in 1998, as it has been for several years. It was the leading cause in 110 of the state's 120 counties, and also accounted for almost one-fifth (19.1%) of years of potential life lost. The statewide age-adjusted rate was 148.0 deaths per 100,000, down from 157.1 in 1997. The AAR ranged from 313.3 per 100,000 in Martin County to 94.6 in Bracken County.

Malignant neoplasms (cancer), the second leading cause, was responsible for nearly a quarter (23.6%) of deaths statewide, and was the leading cause in ten counties. Malignant neoplasms, being more prevalent than heart disease among persons under 65, accounted for 23.6% of total YPLL. The statewide AAR, 142.8 per 100,000, declined slightly from the 1997 rate of 145.7. Lee County had the highest AAR, 250.0 per 100,000, and Menifee had the lowest, 91.1.

Cerebrovascular disease (stroke), the third leading cause statewide, was responsible for 6.6% of total deaths, but only 2.9% of YPLL. The statewide AAR was 27.8 per 100,000, virtually unchanged from 27.9 in 1997. The AAR ranged from 80.0 per 100,000 in Robertson County to 4.3 in Todd County.

Chronic Obstructive Pulmonary Diseases (COPD) includes such diseases as chronic bronchitis, emphysema, and asthma. COPD was the fourth leading cause of death in Kentucky in 1998, accounting for 5.3% of total deaths. The statewide AAR was 27.1 per 100,000, slightly lower than the 1997 rate of 27.6. Among the counties, Gallatin had the highest AAR, at 73.7 per 100,000, and Hickman County had the lowest at 4.6 per 100,000.

Unintentional injuries, the fifth leading cause, accounted for only 4.4% of total deaths. However, due to their affect on younger as well as older age groups, they were the third greatest cause of years of potential life lost prior to age 75, making up 15.5% of the total. Unintentional injury was the leading cause of death for ages 1-34. The statewide AAR was 36.8 per 100,000, down slightly from the 1997 rate of 37.6. The AAR ranged from 124.7 per 100,000 in Magoffin County to 2.6 in Carlisle.

SELECTED CAUSES - TOTAL POPULATION: The following causes were selected as a result of their being included either in the Assessment Protocol for Excellence in Public Health (APEXPH) core data set or in the Centers for Disease Control's consensus set of health status indicators.

Lung cancer accounted for over one-third (35.2%) of all cancer deaths and was a major cause of death for persons 45 and older in 1998. The statewide age-adjusted rate was 53.2 per 100,000, down slightly from 54.1 in 1997. McCreary County had the highest rate at 108.7 per 100,000, and Carlisle County had the lowest, 15.7 per 100,000.

Motor vehicle crashes were the greatest single cause of unintentional injuries resulting in death, responsible for almost half (49.6%) of such deaths. In addition, they accounted for 59.6% of all years of potential life lost due to unintentional injuries. The statewide AAR for motor vehicle crash deaths was 20.4 per 100,000, a slight decrease from 21.1 in 1997. By county, the AAR ranged from 86.8 per 100,000 in Magoffin County to 0.0 (six counties had no resident motor vehicle crash fatalities).

Female breast cancer was responsible for approximately one of every seven (15.1%) cancer deaths in women in 1998. The statewide age-adjusted rate was 19.3 deaths per 100,000 female population, unchanged from the previous year. Jackson County had the highest AAR, at 62.6 per 100,000 women. Fourteen counties had no deaths attributable to female breast cancer.

The remaining selected causes, **chronic liver disease and cirrhosis, homicide and legal intervention, congenital anomalies, and drug related deaths** had relatively low age adjusted rates, but are important indicators for particular age groups and because of their relationships to socioeconomic and lifestyle factors.

LEADING CAUSES - WHITE: As is the case for birth statistics, due to the preponderance of whites in the total population of Kentucky, the leading causes of death for the white population closely mirror the total population in both ranking and rates. However, for most causes of death, white rates tend to be somewhat lower than the population as a whole, e.g., the AAR for all causes was 524.4 per 100,000 for whites compared to 533.4 for the total population.

LEADING CAUSES - BLACK: Age-adjusted rates for most leading causes of death for blacks were greater in 1998 than those for whites. Statewide, the rate for all causes was 698.1 per 100,000, a decrease from 731.4 in 1997, but still higher than the rate of 524.4 for whites. Blacks experienced the same top three leading causes, but their AARs were considerably higher. Diabetes mellitus moved up to the fourth leading cause for blacks with an age adjusted rate of 30.9 per 100,000, compared to a rate of 14.1 for whites. The fifth leading cause was unintentional injuries, with an AAR of 30.6 per 100,000, which was lower than the white rate of 37.6. Homicide and legal intervention appeared as the eighth leading cause of death for blacks. Suicide, the eighth leading cause among whites, was not among the top ten causes for blacks. The reader should be particularly cautious in using black rates in many counties since they are based on very small populations.

References:

- Centers for Disease Control and National Association of County Health Officials. *APEXPH: Assessment Protocol for Excellence in Public Health*. March 1991.
- Curtin LR, Klein RJ. Direct Standardization (age-adjusted death rates). *Healthy People 2000 Statistical Notes*, no. 6-revised. Hyattsville, Maryland: National Center for Health Statistics. March 1995.
- Kentucky Department for Health Services. *Healthy Kentuckians 2000, Mid-Decade Review*. Frankfort, Kentucky: Division of Epidemiology. June 1996.
- Kentucky Department for Public Health. *Consensus Set of Health Status Indicators, Kentucky 1998*. Frankfort, Kentucky: Division of Epidemiology & Health Planning. 1998.
- Kentucky Department for Public Health. *Kentucky Annual Vital Statistics Report, 1998*. Frankfort, Kentucky: Kentucky State Center for Health Statistics. May 2000.
- Kentucky Department for Public Health. *Kentucky County Health Profiles, 1997*. Frankfort, Kentucky: Kentucky State Center for Health Statistics. September 1999.
- Kentucky Department for Public Health. *Kentucky Health Trends 1991-1995, Vol. I, Birth Statistics*. Frankfort, Kentucky: Kentucky State Center for Health Statistics. June 1998.
- National Center for Health Statistics. *Health, United States, 1998 with Socioeconomic Status and Health Chartbook*. Hyattsville, Maryland. 1998.
- National Center for Health Statistics. *Healthy People 2000 Review, 1998-99*. Hyattsville, Maryland: Public Health Service. 1999.